TRITIUM IN DRINKING WATER
METHOD 906.0

Facility Name:_____VELAP ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst:_____ Sample ID: _____ Date of Sample Preparation:_____ Date of Analysis:_____					
Was the detection limit 1000pCi/L or 1 pCi/mL met?	1.2				
Were drinking water samples not acidified when collected?	3.1				
Did background water used in analysis have tritium activity below the minimum detectable activity?	6.2				
Was the solution G liquid scintillator solution composed of 18 g PPO (2.5-dipheneyloxazole) and 3.6 g BIS-MSB (p-bis(o-methylstyryl)benzene) in 2 Liters p-xylene?	6.3.1				
Was 1 Liter of Triton N-101 detergent and a 50 g SXS (sodium xylene sulfonate) solution added to the above p-xylene liquid scintillator solution?	6.3.1				
Was the solution G liquid scintillator solution stored in an amber bottle and counted within 3 days if used in association with plastic vials?	6.3.1				
Were detergent-type commercial liquid scintillator solutions counted within 3 days if used with plastic vials?	6.3.2				
Was the dioxane liquid scintillator solution composed of 4 g PPO (2,5-diphenyloxazole), 0.05 g POPOP (1,4-bis(5-phenyloxazole-2-yl) benzene), and 120 g naphthalene in 1 Liter of 1,4-dioxane?	6.3.3				
Was the dioxane liquid scintillator solution stored in an amber bottle?	6.3.3				
Were 0.5 g sodium hydroxide and 0.1 g potassium permanganate added to 100-mL aliquots of sample prior to distillation?	8.1				
Were the first 10-mL of distillate from both samples and standards alike discarded? (Important because there is a gradient of tritium concentrations in distillates.)	8.1				
Notes/Comments:					

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Was either 4 mL of the distillates mixed with 16 mL of the dioxane liquid scintillator or 8 mL of the distillate mixed with 12 mL of a detergent-type scintillator solution?	8.2				
Were background and standard tritium water solutions prepared for counting by combining the same volumes of low background tritium distilled water with the same scintillator solutions?	8.3				
Were all samples, backgrounds, and standards dark adapted prior to counting???	8.4				
Were samples counted at least long enough to meet the required detection limit of 1 pCi/mL?	8.4				
Were sample counts corrected with background water counts?	9.2				
Notes/Comments:					

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